

Title (en)
CONTACT PLANARIZATION APPARATUS

Title (de)
KONTAKTPLANARISIERUNGSGERÄT

Title (fr)
APPAREIL DE PLANARISATION PAR CONTACT

Publication
EP 2095403 A4 20141203 (EN)

Application
EP 07871620 A 20071128

Priority
• US 2007085772 W 20071128
• US 61389806 A 20061220

Abstract (en)
[origin: US2008153405A1] A contact planarization apparatus includes a lower membrane assembly, an upper membrane assembly, a differential pressure assembly, and a curing or reflowing assembly. The lower membrane assembly supports a substrate to be planarized and biases it toward the upper membrane assembly under the influence of the pressure differential assembly. The upper membrane assembly planarizes the coating on the substrate under the influence of the differential pressure assembly and includes a flexible sheet which is supported above the substrate stage and below the curing or reflowing assembly via a vacuum force applied by the differential pressure assembly. The differential pressure assembly moves the lower and upper membrane assemblies relative to one another to planarize the coating on the substrate entirely through the application of vacuum and pressure forces. The differential pressure assembly includes atop pressure chamber positioned above the upper face of the upper sheet, a bottom pressure chamber positioned below the lower face of the lower sheet, and a central pressure chamber positioned generally between the lower face of the upper sheet and the upper face of the lower sheet.

IPC 8 full level
H01L 21/304 (2006.01); **H01L 21/3105** (2006.01); **H01L 21/67** (2006.01)

CPC (source: EP KR US)
G03F 7/168 (2013.01 - EP US); **H01L 21/304** (2013.01 - KR); **H01L 21/67092** (2013.01 - EP US); **H01L 21/67115** (2013.01 - EP US)

Citation (search report)
• [XAY] EP 0683511 A2 19951122 - AT & T CORP [US]
• [YA] US 2002106899 A1 20020808 - BLALOCK GUY T [US], et al
• [X] US 6677252 B2 20040113 - MARSH EUGENE P [US]
• [A] US 2005056963 A1 20050317 - MCCUTCHEON JEREMY W [US]
• See references of WO 2008079582A1

Designated contracting state (EPC)
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DOCDB simple family (publication)
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DOCDB simple family (application)
US 61389806 A 20061220; EP 07871620 A 20071128; JP 2009543014 A 20071128; KR 20097013139 A 20071128; TW 96146035 A 20071204; US 2007085772 W 20071128